

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Joseph S. Pleva et al.  
Serial No.: : Not Yet Assigned  
Filed : Herewith  
Entitled : ANTENNA CONFIGURATIONS  
FOR REDUCED RADAR  
COMPLEXITY  
Docket : RTN-147CUS

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

Certificate of Mailing (37 C.F.R. 1.8(a))

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By: \_\_\_\_\_  
Robert V. Klauzinski  
Reg. No. 42,742  
Attorney for Applicant(s)

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application  
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Alexandria, VA 22313-1450

Dear Sir:

It is desired to cite for the record in this application the enclosed documents listed on the attached copy of PTO Form SB/08A. The paragraph(s) marked below are applicable to this Information Disclosure Statement.

☒ (1) **The enclosed Information Disclosure Statement is being filed: within three months of the filing date; or within three months of the entry of the national stage of the above-identified application; or before the mailing of a first Office Action on the merits; or before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. §1.114. Accordingly, Applicant(s) believes that no fee or statement is required.**

☐ (2) Pursuant to 37 C.F.R. § 1.97(c), the enclosed Information Disclosure Statement is being filed before the mailing date of a final action or a notice of allowance and is accompanied by the fee set forth in § 1.17(p).

STATEMENT UNDER 37 C.F.R. § 1.97(e)(1) PURSUANT TO 37 C.F.R. § 1.97(c)

☐ (3) Pursuant to 37 C.F.R. § 1.97(c), the enclosed Information Disclosure Statement is being filed before the mailing date of a final action or a notice of allowance and is accompanied by a statement under 37 C.F.R. § 1.97(e)(1). The undersigned hereby states that each item of information contained in the attached Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application mailed not more than three months prior to the filing of the accompanying Information Disclosure Statement.

STATEMENT UNDER 37 C.F.R. § 1.97(e)(2) PURSUANT TO 37 C.F.R. § 1.97(c)

☐ (4) Pursuant to 37 C.F.R. § 1.97(c), the enclosed Information Disclosure Statement is being filed before the mailing date of a final action or a notice of allowance and is accompanied by a statement under 37 C.F.R. § 1.97(e)(2). The undersigned hereby states that no item of information contained in the accompanying Information Disclosure Statement was cited in a communication from a foreign patent

office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the accompanying Information Disclosure Statement was known to any individual having a duty of disclosure as set forth in 37 C.F.R. § 1.56 (c) more than three months prior to the filing of the accompanying Information Disclosure Statement.

PETITION UNDER 37 C.F.R. § 1.97(d) WITH A STATEMENT UNDER 37 C.F.R. § 1.97(e)(1)

[ ] (5) Pursuant to 37 C.F.R. § 1.97(d), Applicant(s) hereby petition the Assistant Commissioner to consider the attached Information Disclosure Statement. Applicant(s) state that the issue fee has not been paid and that a statement under 37 C.F.R. § 1.97(e) is provided herein, along with the petition fee required under 37 C.F.R. § 1.17(i). The undersigned hereby states that each item of information contained in the attached Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application mailed not more than three months prior to the filing of the accompanying Information Disclosure Statement.

PETITION UNDER 37 C.F.R. § 1.97(d) WITH A STATEMENT UNDER 37 C.F.R. § 1.97(e)(2)

[ ] (6) Pursuant to 37 C.F.R. § 1.97(d), Applicant(s) hereby petition the Assistant Commissioner to consider the attached Information Disclosure Statement. Applicant(s) state that the issue fee has not been paid and that a statement under 37 C.F.R. § 1.97(e) is provided herein, along with the petition fee required under 37 C.F.R. § 1.17(i). The undersigned hereby states that no item of information contained in the accompanying Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the accompanying Information Disclosure Statement was known to any individual having a

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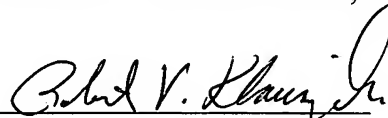
The filing of this Information Disclosure Statement is not a representation by the undersigned as to personal knowledge of the contents of every word or phrase of the material enclosed or that reliance on other suitably trained professionals has not been made.

If a search report of a searching agency is enclosed identifying the nature of the relevance of each document, such a designation is deemed to satisfy Rule 98(a) (3) even if in a foreign language, since the few terms of relevance therein are deemed of universal cognizance. However, Applicant(s) does not necessarily adopt the position reflected by that report.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845.

Respectfully submitted,

DALY, CROWLEY & MOFFORD, LLP

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Dated: 7/14/03

Pursuant to 37 C.F.R. §1.98(d), copies of references marked with a \* which were previously cited by or submitted to the Patent Office in Parent Application No. 09/932,574, filed August 16, 2001 are not enclosed.

PTO/SB/08A (02-03)

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			Filing Date	Herewith
			First Named Inventor	Joseph S. Pleva
			Art Unit	Not Yet Assigned
			Examiner Name	Not Yet Assigned
			Attorney Docket Number	RTN-147CUS
Sheet	1	of	2	

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	*	US- 5451960	09/19/1995	Kastella et al.	
	*	US- 5929802	07/27/1999	Russell et al.	
	*	US- 5999092	12/07/1999	Smith et al.	
	*	US- 6037860	03/14/2000	Zander et al.	
	*	US- 6069581	05/20/2000	Bell et al.	
	*	US- 5757307	05/26/1998	Nakatani et al.	
	*	US- 5479173	12/26/1995	Yoshioka et al.	
	*	US- 5689264	11/18/1997	Ishikawa et al.	
	*	US- 5926126	07/20/1999	Engelman	
	*	US- 5999874	12/07/1999	Winner et al.	
	*	US- 55117197	05/14/1996	Algeo et al.	
	*	US- 5627510	05/06/1997	Yuan	
	*	US- 5410745	04/25/1995	Friesen et al.	
	*	US- 5530447	06/25/1996	Henderson et al.	
	*	US- 4063243	12/13/1977	Anderson et al.	
	*	US- 4209791	06/24/1980	Gerst et al.	
	*	US- 4246585	01/20/1981	Mailoux	
	*	US- 4414550	11/08/1983	Tresselt	
	*	US- 4507662	03/26/1985	Rothenberg et al.	

FOREIGN PATENT DOCUMENTS						
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		Country Code <sup>3</sup> *Number <sup>4</sup> *Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			
	*	2 709 834	09/10/1993	FR		
	*	198 50 128	05/28/1999	DE		
	*	EP 0 932 052	07/28/1999	EP		
	*	198 55 400	12/01/1998	DE		
	*	0 484 995	05/13/1992	EPO		
	*	0 784 213	01/13/1996	EPO		

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				Examiner Name	Not Yet Assigned
Sheet	2	of	2	Attorney Docket Number	RTN-147CUS

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Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	*	International Search Report of PCT Application No. PCT/US01/25638 dated May 7, 2002.	
	*	Partial International Search Report of PCT Application No. PCT/US01/25642 dated May 27, 2002.	
	*	International Search Report of PCT Application No. PCT/US01/42065 dated May 14, 2002.	
	*	International Search Report of PCT Application No. PCT/US01/25594 dated May 7, 2002.	
	*	G.S. Dow, et al. "Monolithic Receivers with Integrated Temperature Compensation Function", IEEE GaAs IC Symposium, 1991, pp. 267-269.	
	*	International Search Report of PCT Application No. PCT/US01/25682 dated May 14, 2002.	
	*	Sangster, Alan et al. "A Moment Method Analysis of a Transverse Slot Fed by a Boxed Stripline", (No Date) pp. 146-149.	
	*	Schaubert, Daniel H. et al. "Moment Method Analysis of Infinite Stripline-Fed Tapered Slot Antenna Arrays with a Ground Plane", IEEE Transactions on Antennas and Propagation, Vol. 42, No. 8, August 1994, pp. 1161.	
	*	Smith, Peter "Transverse Slot Radiator in the Ground-Plane of Enclosed Stripline", 10th International Conference on Antennas and Propagation 14.17, April 1997, 5 pages.	
	*	Theron, Isak Petrus et al. "On Slotted Waveguide Antenna Design at Ka-Band", IEEE Trans. Vol. 32, October 1984, pp. 1425-1426.	

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		Number-Kind Code <sup>2</sup> (if known)			
	*	US- 4962383	10/09/1990	Tresselt	
	*	US- 6097931	08/01/2000	Weiss et al.	
	*	US- 6198434	03/06/2001	Martek et al.	
	*	US- 6252560	06/26/2001	Tanaka et al.	
	*	US- 6091355	07/18/2000	Cadotte, Jr. et al.	
	*	US- 5008678	04/16/1991	Herman	
	*	US- 5325096	06/28/1994	Pakett	
	*	US- 5517196	05/14/1996	Pakett et al.	
	*	US- 5675345	10/07/1997	Pozgay et al.	
	*	US- 5929802	07/27/1999	Russell et al.	
	*	US- 5959570	09/28/1999	Russell	
	*	US- 6026347	02/15/2000	Schuster	
	*	US- 6104336	09/15/2000	Curran et al.	
	*	US- 6107956	08/22/2000	Russell et al.	
	*	US- 6011507	01/04/2000	Curran et al.	
	*	US- 6114985	09/05/2000	Russell et al.	
	*	US- 5999119	12/07/1999	Carnes et al.	
	*	US- 5249157	09/28/1993	Taylor	
	*	US- 5396252	03/07/1995	Kelly	

FOREIGN PATENT DOCUMENTS						
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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	*	EP 0 978 729 A2	02/09/2000			
	*	EP 0 642 190 A1	12/30/1993			
	*	EP 0 887 658	12/30/1998			
	*	DE 195 23 693	05/14/1998			
	*	DE 196 32 889	02/19/1998			
	*	0 398 712	05/17/1990			

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	*	US- 5613039	03/18/1997	Wang et al.	
	*	US- 5619208	04/08/1997	Tamatsu et al.	
	*	US- 5625362	04/29/1997	Richardson	
	*	US- 5633642	05/27/1997	Hoss et al.	
	*	US- RE34773	11/01/1994	Dombrowski	
	*	US- 5394292	02/28/1995	Hayashida	
	*	US- 6130607	10/10/2000	McClanahan et al.	
	*	US- 5008678	04/16/1991	Herman	
	*	US- 5978736	11/02/1999	Greendale	
	*	US- 5999092	12/07/1999	Smith et al.	
	*	US- 6026353	02/15/2000	Winner	
	*	US- 6087975	07/11/2000	Sugimoto et al.	
	*	US- 6317090	11/13/2001	Nagy et al.	
	*	US- 6320547	11/20/2001	Fathy et al.	
		US-			
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	*	1 020 989	07/19/2000			
	*	0 982 173	03/01/2000			

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	*	International Search Report of PCT Application No. PCT/US01/25676 dated December 21, 2001.	
	*	International Search Report of PCT Application No. PCT/US01/25677 dated April 17, 2002.	
	*	Barnett, Roy I. et al. "A Feasibility Study of Stripline-Fed Slots Arranged as a Planar Array with Circular Grid and Circular Boundary", IEEE, 1989, pp. 1510-1515.	
	*	Bhattacharyya, Arum, et al. "Analysis of Stripline-Fed Slot-Coupled Patch Antennas with Vias for Parallel-Plate Mode Suppression", IEEE Transactions on Antennas and Propagation, Vol. 46, No. 4, April 1998, pp. 538-545.	
	*	Clouston E.N. et al. "A Triplate Slot Antenna Developed for Time-Domain Measurements on Phased Arrays", 1998, pp. 312-315.	
	*	Das, Nirod K. et al. "Multiport Scattering Analysis of General Multilayered Printed Antennas Fed by Multiple Feed Ports: Part II-Applications", IEEE, 1992, pp. 482-491.	
	*	Katehi, Pisti B. et al. "Design of a Low Slidlobe Level Stripline Fed Slot Array Covered by a Dielectric Layer", 1989, pp. 978-981.	
	*	Kimura, Yuichi et al. "Alternating Phase Single-Layer Slotted Waveguide Arrays at 25GHz Band", IEEE, 1999, pp. 142-145.	
	*	Muir, A., "Analysis of Stripline/Slot Transition", Electronics Letter, Vol. 26 No. 15, pp. 1160-1161.	
	*	Sakaibara, Kunio et al. "A Single Layer Slotted Waveguide Array for 22GHz Band Radio System Between Mobile Base Stations", IEEE, 1994, pp. 356-359.	

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	Filing Date	Herewith	
	First Named Inventor	Joseph S. Pleva	
	Art Unit	Not Yet Assigned	
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number	RTN-147CUS	
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U. S. PATENT DOCUMENTS					
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		Number-Kind Code <sup>2</sup> (if known)			
	*	US- 5777563	07/07/1998	Minissale et al.	
	*	US- 5805103	09/08/1998	Doi et al.	
	*	US- 5808561	09/15/1998	Kinoshita et al.	
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	*	US- 5839534	11/24/1998	Chakraborty et al.	
	*	US- 5905472	05/18/1999	Wolfson et al.	
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	*	2 709 834	09/10/1993	FR		
	*	198 50 128	05/28/1999	DE		
	*	EP 0 932 052	07/28/1999	EP		
	*	198 55 400	12/01/1998	DE		
	*	0 484 995	05/13/1992	EPO		
	*	0 784 213	01/13/1996	EPO		

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	*	International Search Report of PCT Application No. PCT/US01/25638 dated May 7, 2002.		
	*	Partial International Search Report of PCT Application No. PCT/US01/25642 dated May 27, 2002.		
	*	International Search Report of PCT Application No. PCT/US01/42065 dated May 14, 2002.		
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	*	G.S. Dow, et al. "Monolithic Receivers with Integrated Temperature Compensation Function", IEEE GaAs IC Symposium, 1991, pp. 267-269.		
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	*	US- 6255984	06/06/2001	Kreppold et al.	
	*	US- 6256573	07/03/2001	Higashimata	
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	*	US- 5339075	08/16/1994	Abst et al.	

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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	*	EP 0 978 729 A2	02/09/2000			
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	*	US- 5521579	05/28/1996	Bernhard	
	*	US- 5583495	12/10/1996	Ben Lu Lu	
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	*	1 020 989	07/19/2000			
	*	0 982 173	03/01/2000			

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Application Number	Not Yet Assigned
Filing Date	Herewith
First Named Inventor	Joseph S. Pleva
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	RTN-147CUS

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	*	US- 6225918	05/05/2001	Kam	
	*	US- 6232910	05/15/2001	Bell et al.	
	*	US- 3974501	08/10/1976	Ritzie	
	*	US- 4409899	10/18/1983	Owen et al.	
	*	US- 4718558	01/12/1988	Castaneda	
	*	US- 5138321	08/11/1992	Hammer	
	*	US- 5252981	10/12/1993	Grein et al.	
	*	US- 5414643	05/09/1995	Blackman et al.	
	*	US- 5715044	02/03/1998	Hayes	
	*	US- 5719580	02/17/1998	Core	
	*	US- 6307622	10/23/2001	Lewis	
	*	US- 3935559	01/27/1976	Straffon, et al.	
	*	US- 3940696	02/24/1976	Nagy	
	*	US- 3978481	08/31/1976	Angwin et al.	
	*	US- 4003049	01/11/1977	Sterzer et al.	
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		Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
Sheet 1 of 1	Attorney Docket Number	RTN-147CUS	

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	*	US- 4143370	03/06/1979	Yamanaka et al.	
	*	US- 4217582	08/12/1980	Endo et al.	
	*	US- 4308536	12/29/1981	Sims, Jr. et al.	
	*	US- 4348675	09/07/1982	Senzaki et al.	
	*	US- 4543577	09/24/1985	Tachibana et al.	
	*	US- 4549181	10/22/1985	Tachibana et al.	
	*	US- 4622636	11/11/1986	Tachibana	
	*	US- 4673937	06/16/1987	Davis	
	*	US- 4703429	10/27/1987	Sakata	
	*	US- 4901083	02/13/1990	May et al.	
	*	US- 4970653	11/13/1990	Kenue	
	*	US- 4994809	02/19/1991	Yung et al.	
	*	US- 5008678	04/16/1991	Herman	
	*	US- 5014200	05/07/1991	Chundrik et al.	
	*	US- 5023617	06/11/1991	Deering	
	*	US- 5045856	09/03/1991	Paoletti	
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	*	US- 5134411	07/28/1992	Adler	
	*	US- 5173859	12/22/1992	Deering	

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Sheet	1	of	2

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	*	US- 5189426	02/23/1993	Asbury et al.	
	*	US- 5249027	09/28/1993	Mathur et al.	
	*	US- 5249157	09/28/1993	Taylor	
	*	US- 5268692	12/07/1993	Grosch et al.	
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	*	US- 5454442	10/03/1995	Labuhn et al.	
	*	US- 5467072	11/14/1995	Michael	
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	*	US- 5471214	11/28/1995	Faibish et al.	
	*	US- 5481268	01/02/1996	Higgins	
	*	US- 5483453	01/09/1996	Uemura et al.	
	*	US- 5485155	01/16/1996	Hibino	

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Attorney Docket Number	RTN-147CJUS

Sheet	2	of	2
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